

IN THE CLAIMS:

Please cancel claims 5-10 and 15-20 without prejudice, and amend claims 1 and 11 as follows:

1. (Currently Amended) A head positioning control method for a storage device for positioning a head at a specified location on a storage medium, comprising:

a step of performing coarse control by observer control based on a present position and an estimated position of said head without performing ~~integral compensation~~ ~~or~~ bias compensation;

a step of estimating a position of said head for a next sample, and estimating an initial bias value from a difference between a detected position and said estimated position at the start of settling; and

a step of performing settling control with ~~said integral compensation~~ ~~or~~ said bias compensation by using said initial bias value,

wherein said step of performing said settling control performs settling control by observer control, ~~and~~

~~wherein said control means estimates the initial bias value at the start of settling.~~

2. (Previously Presented) The head positioning control method of claim 1, wherein said step of performing settling control comprises:

a step of supplying at least one of a target trajectory and feed forward current, whose size is proportional to an initial position or initial velocity at a start of said settling control, to a control system for performing said settling control.

3. (Canceled)

4. (Previously Presented) The head positioning control method of claim 1, wherein said step of performing said coarse control is velocity control of said head.

5-10. (Cancelled)

11. (Currently Amended) A head positioning control device for a storage device for driving an actuator to position a head at a specified location on a disk, comprising:

a detection means for detecting a present position of said head; and

a control means that performs coarse control without ~~integral compensation~~ or bias compensation and then performs settling control of said actuator based on said detected position and an estimated position of said head,

wherein said control means performs settling control with ~~integral compensation or~~ bias compensation by estimating the position of said head for ~~the~~a next sample;i, and estimating ~~the~~an initial bias value from ~~the~~a difference between said detected position and said estimated position;

~~wherein said control means performs settling control by observer control,~~
and

~~wherein said control means estimates the initial bias value at the start of~~
settling.

12. (Previously Presented) The head positioning control device of claim 11, wherein said control means supplies at least a target trajectory or feed-forward current, that is proportional to the initial position or initial velocity at the start of said settling, to a control system that performs said settling control.

13. (Canceled)

14. (Previously Presented) The head positioning control device of claim 11, wherein said coarse control is velocity control of said head.

15-20. (Cancelled)